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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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EXAMINER

CROCKFORD, K

ART UNIT PAPER NUMBER

1762

DATE MAILED: 09/28/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/594,794

Applicant(s)

MIZUTA, YOSHIHITO

Examiner

Kirsten A Crockford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 17-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Restriction

1. Applicant's election without traverse of claims 1-16 in Paper No. 5 is acknowledged.
Accordingly, claims 17-22 have been withdrawn from consideration.

Claim Objections

2. Claims 1-16 are objected to because of the following informalities:

In claims 1-16, phrases such as "being ... contacted," "being shifted," and "being transferred" in claim 1 (lines 12, 16, and 20 respectively), and "being started" and "being immersed" in claims 8-11 (lines 6 and 8) is awkward wording. The Examiner suggests making a more active recitation that the process steps occur. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 1, and claim 8, line 3, the term "loop-like" is vague and indefinite because the use of the word "like" to an otherwise definite expression extends the scope of the expression so as to render it indefinite. Also in claim 1, at line 10, the term "apparently" also

renders the claim language vague and indefinite because it is not clear whether the step actually takes place. In claim 1, line 10, the phrase “cut crosswise” is confusing. Is the workpiece actually cut, or does this phrase mean that it is the initial immersion occurs in a crosswise direction? What is meant by crosswise? Do angles of 0° and 90° (as claimed in claims 3 and 4) produce a crosswise immersion? Also in claim 1, it is not clear what is meant by the phrase “taken substantially in a thickness direction thereof” in lines 13-14. What is a “thickness direction”? In line 18 of claim 1, what is meant by “a longitudinal direction of the workpiece”? How can be a longitudinal direction of a circular workpiece? It is not clear whether immersion in a longitudinal direction requires spinning the workpiece along its circumference or merely immersing the workpiece directly into the bath along the angle of immersion? The specification at page 15 discloses that the workpiece is rotated after initial immersion; the Examiner suggests adding this limitation to claim 1 to clarify the method steps required in the instant invention.

In line 4 of claims 3-7, the phrases “within a range of $\pm 90^\circ$ ” or “within a range of $\pm 80^\circ$ ” are vague and indefinite. Does this mean a range of -90° to 90° , or -80° to 80° , is claimed? The specification states at page 12 that “+” and “-” are merely symbols used to describe the rotational direction of the angle depending on the reference position. If this is the case, does a range of $\pm 90^\circ$ intend to cover only a 90° range of movement, or does the range intend to cover movement over 180° overall? Clarification is requested.

In claims 8-16, line 2, “wherein the workpiece is constituted by a steering wheel material” is awkward wording. Does this mean that the workpiece is made of steering wheel material, or that the workpiece itself is a steering wheel?

Claims 12-16 are vague and indefinite because the claims are confusing. Specifically, in line 4, “immersion of the steering wheel material progressing” is confusing – is this a positive recitation of a process step which requires the steering wheel material to be immersed? Further, “while a site is defined at which the steering wheel material is immersed...” is also confusing. The Examiner suggests making a positive recitation of immersing the steering wheel material at the transfer initiating site in addition to or instead of the step of defining the site.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

6. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 61005981.

JP '981 discloses a method for providing a wood grain pattern to a steering wheel comprising the steps of: floating a transfer film having a pattern on water; downwardly immersing the steering wheel in the water to transfer the pattern to the wheel; immersing the steering wheel in the water in a crosswise manner at a transfer initiating site; shifting the steering wheel at the transfer initiating site so that it is continuously immersed in the transfer liquid by rotating the steering wheel while an immersion attitude of 90° is maintained; and transferring the transfer film during immersion; whereby the transfer printing is fed such that the whole

circumference of the steering wheel is surrounded. It is known that the immersion at the transfer initiating site is “cut crosswise” because it is immersed at a deflection angle of 0° (as defined in Applicant’s specification) and this angle falls within Applicant’s claimed range, as set forth in claim 3.

7. Claims 1, 3, 5, 7, 12, and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Watanabe et al. (6,022,438).

Watanabe et al. discloses a method for providing a wood grain pattern to a steering wheel comprising the steps of: floating a transfer film having a wood grain pattern on water; downwardly immersing the steering wheel in the water to transfer the pattern to the steering wheel; immersing the steering wheel in the water in a crosswise manner at a transfer initiating site; shifting the steering wheel at the transfer initiating site so that it is continuously immersed in the transfer liquid while an immersion attitude is maintained; and transferring the transfer film during immersion; whereby the transfer printing is fed such that the whole circumference of the steering wheel is surrounded with transfer film. It is known that the immersion at the transfer initiating site is “cut crosswise” because it is immersed at a deflection angle of 90° (as defined in Applicant’s specification) which falls within Applicant’s claimed range of deflection angles, as set forth in claims 3 and 4. In addition, it is noted that Watanabe et al. teaches immersing its workpiece in a downward manner at a maintained immersion attitude. It is the Examiner’s position that immersing in a downward direction would meet Applicant’s limitation of immersing in a longitudinal direction since the steering wheel workpiece is circular and the dimension across its diameter is equivalent to the length of the workpiece. Further, it is noted

that the workpiece of Watanabe et al. is initially immersed and shifted at the transfer initiating site.

As to claims 5, 7, 12, 14, and 15, Watanabe et al. teaches a transfer angle of 30-45° in col. 7, line 43 to col. 8, line 35; this is equivalent to Applicant's immersion attitude angle as defined in the specification. Watanabe et al. teaches that the transfer angle is placed as such so that the joint line of the transfer pattern is located at the backside of the rim sections of the steering wheel workpiece, therefore being substantially invisible from a driver's seat when the steering wheel is mounted on a vehicle.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 8 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61005981.

JP '981 teaches that after initial immersion, the steering wheel is rotated while the immersion attitude of the steering wheel is maintained. JP '981 lacks a teaching of initially immersing the steering wheel at a transfer-not-required portion. The Examiner takes Official notice that it is well known in the art of making steering wheels that portions of the steering wheels can be covered with grips or leather or other material. If Applicant disagrees, they should so state on the record and the Examiner will provide a reference. The covered portions would

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not require a wood grain pattern coated thereon since they will be covered in a later manufacturing step. It is the Examiner's position that it would have been obvious to one having ordinary skill in the art to have started the initial immersion of JP '981's steering wheel at any portion, which would necessarily include a transfer-not-required portion, since JP '981 teaches equivalent and similar coating on the entire surface of its steering wheel substrate.

10. Claims 2, 4-7, 9, and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 61005981 as applied to claims 1-4 above, and further in view of Watanabe et al. (6,022,438).

JP '981 does not teach a transfer film that is fed continuously, thereby having a transfer film feed rate. Watanabe et al. discloses a method of continuously feeding transfer film in a water bath, whereby the transfer film has a transfer film feed rate (see Figure 5A). It would have been obvious for one having ordinary skill in the art to have supplied the transfer film 4 in the method of JP '981 as taught by Watanabe et al. with the expectation of improved efficiency because the process of JP '981 would no longer require having to replace the transfer film in JP '981's bath after coating each steering wheel workpiece. In the case that the transfer film of JP '981 is fed at a transfer film feed rate, it would have been obvious for one skilled in the art to have set the feed rate of the transfer film at substantially the same rate as the immersion/rotation of the steering wheel workpiece; if the transfer film is fed at a feed rate that is too slow, there would be stretching of the transfer film by the immersion/rotation of the workpiece pulling it along, and likewise if the transfer film is fed too fast it would create bunching up of the transfer film and uneven application.

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JP '981 also does not teach immersing the steering wheel at an immersion-attitude of $\pm 80^\circ$. Watanabe et al. teaches at col. 8, lines 10-14, that "the steering wheel 1A is set so that its front-face 1a is faced to the transfer film F at the transfer angle of 45° so that the joint line 5a of the transfer pattern 5 is located at the back-side 1b of the rim section 4." It would have been obvious to one having ordinary skill in the art to have immersed the steering wheel workpiece of JP '981 at an angle of 45° to the water surface (with the front face towards the water), as taught by Watanabe et al., in order to place its joint line at the back side of the steering wheel workpiece in order to hide the joint line from the passengers in a car.

11. Claims 2, 4, 6, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al.

As discussed above, Watanabe et al. discloses a method of continuously feeding transfer film in a water bath, whereby the transfer film has a transfer film feed rate (see Figure 5A), however it does not specifically teach that the transfer film feed rate is substantially equal to the immersion rate of the workpiece. One skilled in the art would have realized that if the transfer film is fed at a feed rate that is too slow, there would be stretching of the transfer film by the immersion/rotation of the workpiece pulling it along; likewise if the transfer film is fed too fast it would create bunching up of the transfer film and uneven application on the workpiece. Therefore, it would have been obvious for one skilled in the art to have set the feed rate of the transfer film at substantially the same rate as the immersion/rotation of the steering wheel workpiece with the expectation of producing the best results. Claims 4, 6, and 13 are applied for the reasons set forth above in paragraph 7.


Conclusion


12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cho (6,214,154) is cited to demonstrate the state of the art with respect to applying transfer films to steering wheel workpieces by liquid transfer.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kirsten A Crockford whose telephone number is 703-306-5461. The examiner can normally be reached on Monday to Thursday and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3599 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1495.

kac 
September 27, 2001


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